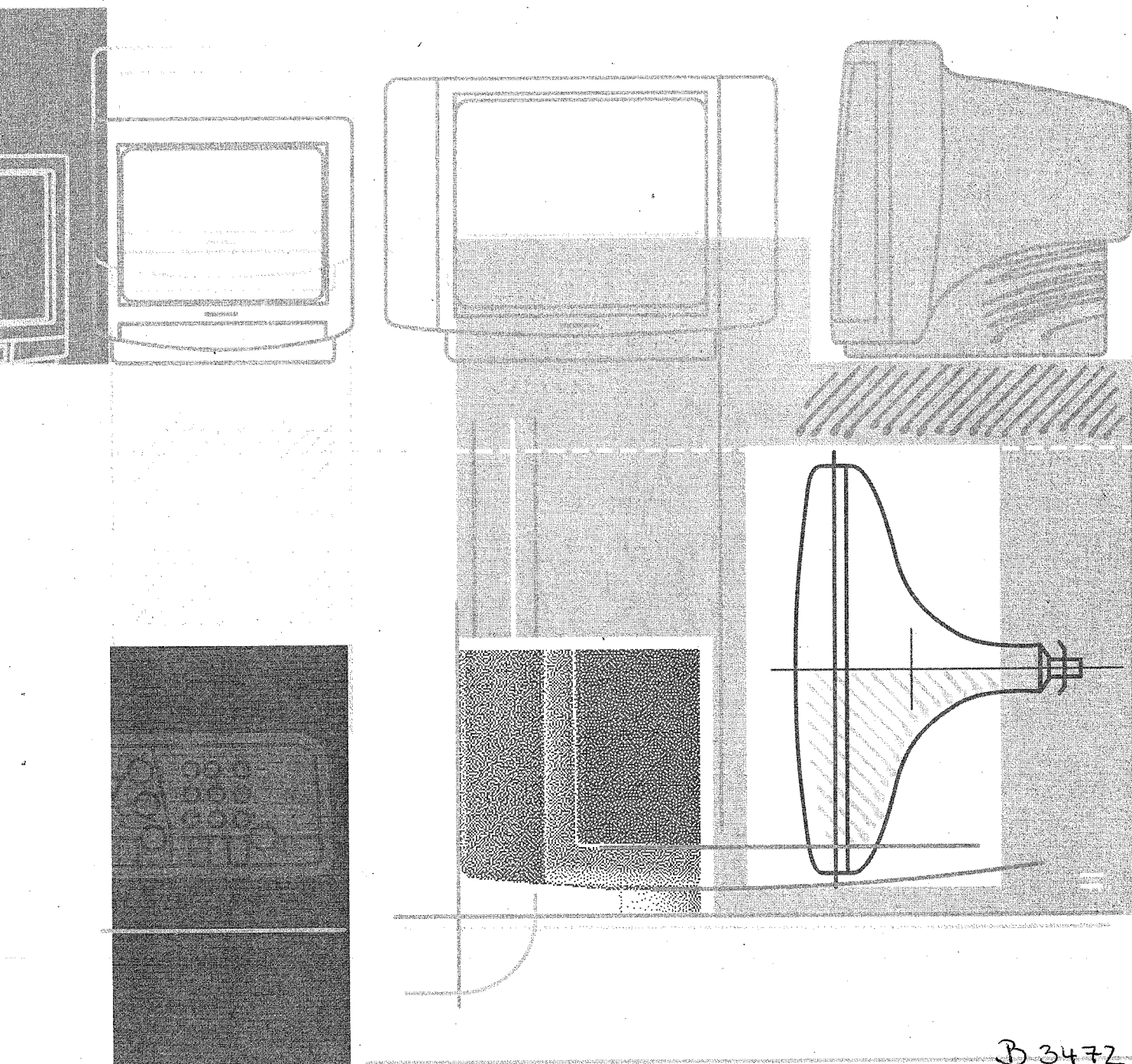


GRUNDIG

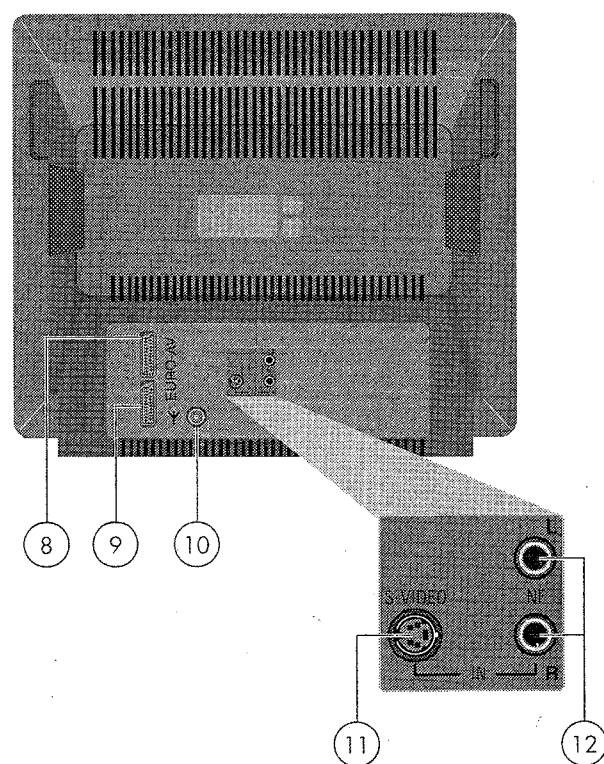
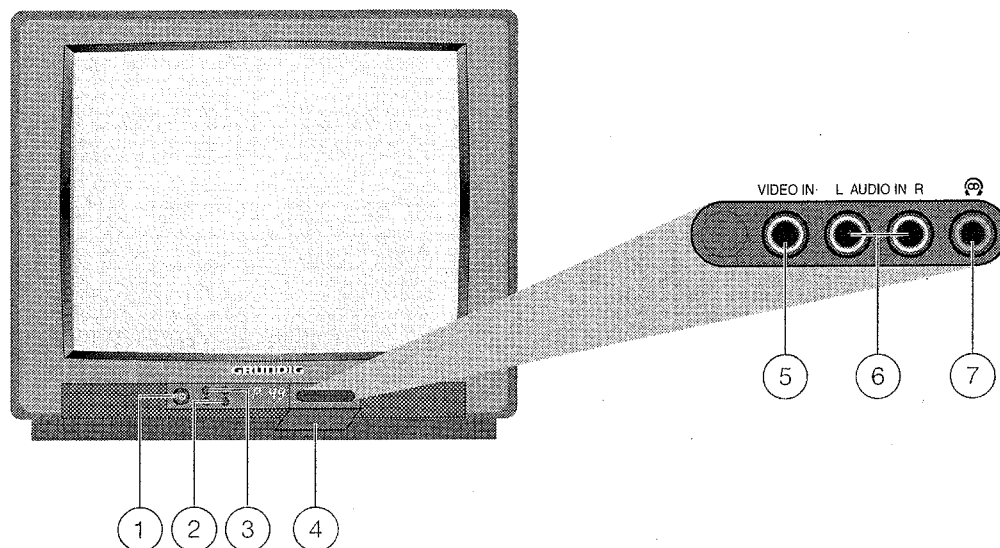


GRUN-B03472

COLOR TELEVISION



B 3472



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Additional Information for Units sold in Great Britain

Units sold in GB are suitable for operation from a 240 V AC, 50 Hz mains supply.

In case this appliance is supplied with a Safety Standard Approved mains lead fitted with a non-rewireable 13 Amp mains plug which, if unsuitable for your socket, should be cut off and an appropriate plug fitted by a qualified electrician. The fuse and fuse holder must be removed from the plug as accidental insertion of the redundant plug into a 13 Amp socket is likely to cause an electrical hazard.

Note: The severed plug must be destroyed to avoid a possible shock hazard should it be inserted into a 13 Amp socket elsewhere.

If it is necessary to change the fuse in the non-rewireable plug, the correct type and rating (5 Amp ASTA or BSI approved BS 1362) must be used and the fuse cover must be refitted. If the fuse cover is lost or damaged the lead and plug must not be used until a replacement is obtained. Replacement fuse covers should be obtained from your dealer.

If a non-rewireable plug or a rewireable 13 Amp (BS 1363) plug is used, it must be fitted with a 5 Amp ASTA or BSI approved BS 1362 fuse. If any other type of plug is used it must be protected by a 5 Amp fuse either in the plug or at the distribution board.

Important:

The wires in the mains lead are coloured in accordance with the following code:

BLUE – NEUTRAL

BROWN – LIVE

As the colours of the wires in the mains lead of your appliance may not correspond with the coloured marking identifying the terminals in your plug, proceed as follows:

Connect the BLUE coloured wire to plug terminal marked with the letter "N" or coloured black.

Connect the BROWN coloured wire to the plug terminal marked with a letter "L" or coloured red.

In no circumstance must any of the wires be connected to the terminal marked with a letter "E", earth symbol $\perp$, coloured green or green and yellow.

Replacement mains leads can be obtained from your dealer.

GB

F

I

NL

Buttons and Connections on the Unit

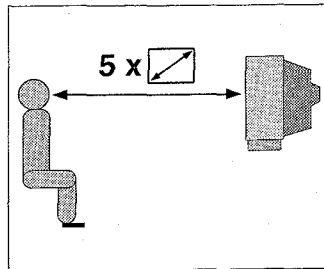
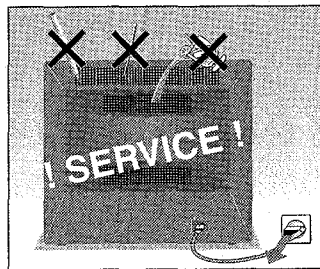
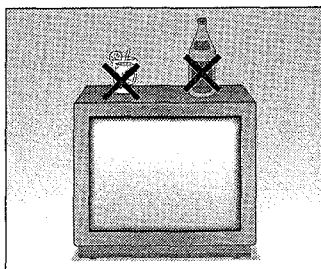
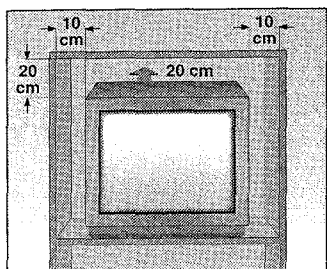
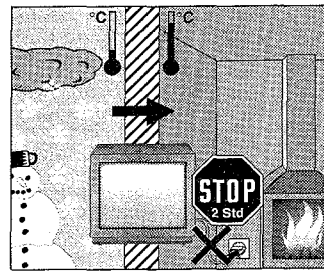
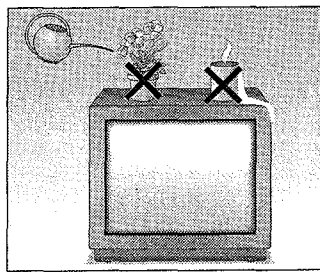
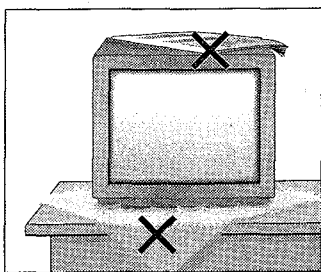
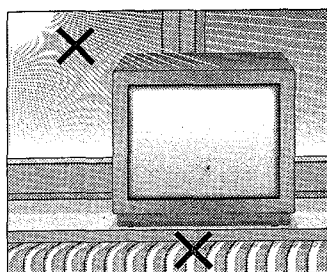
Unit front

- ① **IO** = Mains switch. When switching the TV set on, programme position 1 is automatically selected.
- ② **-  +** = Volume setting buttons.
- ③ **- P +** = Programme position select buttons.
- ④  = Flap, pull flap open.
- ⑤ **VIDEO IN socket** = Connection (video) for units with Cinch FBAS output (e.g., camcorder, computer).
- ⑥ **Cinch-sockets** = Connections for audio input signals with FBAS.
R = input, right channel
L = input, left channel
- ⑦  = Headphone socket, 3.5mm Ø.

Unit rear

- ⑧ **EURO-AV socket (blue)** = Standard connection for a video unit
- ⑨ **EURO-AV socket (black)** = Universal connection, DIN EN 50049. Video and RGB connection possible.
- ⑩ **Y** = Aerial socket 75Ω, coaxial, DIN 45325 IEC 169-2.
- ⑪ **S-VIDEO socket** = Connection (video) for S-video recorder or S-camcorder
- ⑫ **Cinch-sockets** = Connections for audio input signals with S-VHS.
R = input, right channel
L = input, left channel

Safety Instructions and Setting Up



The ideal viewing distance is five times the diagonal width of the screen. See illustration.

Switch the television off with the mains switch ① if you are not watching it for a longer period of time (e.g., night).

This saves energy.

The unit can also be damaged even when it is turned off if lightning strikes the power supply system and/or the aerial cable.

For this reason, you should always disconnect your television from the mains plug and the aerial plug during thunderstorms.

Never expose the unit to moisture.

Do not insert foreign objects into the ventilation openings on the back.

Caution! High voltage!

The TV receiver is provided with a Megatron-picture tube with a special surface layer.

This has the advantage of an antistatic effect, i.e. the surface does not attract dust particles.

When the set is switched on, static charges of the picture screen are avoided to a large degree by the special surface layer.

Clean the picture screen of your TV set only with a moistened soft cloth.

Use clear and clean water only.

When cleaning the picture screen, do not apply pressure (abrasion, scratches).

Do not stick labels of any kind onto the picture screen.

The Remote Control

The remote control is the central control unit for your television set.

All operational functions and basic settings are carried out with the remote control.

Insert the battery supplied. Note the markings inside the battery compartment! Close the cover.

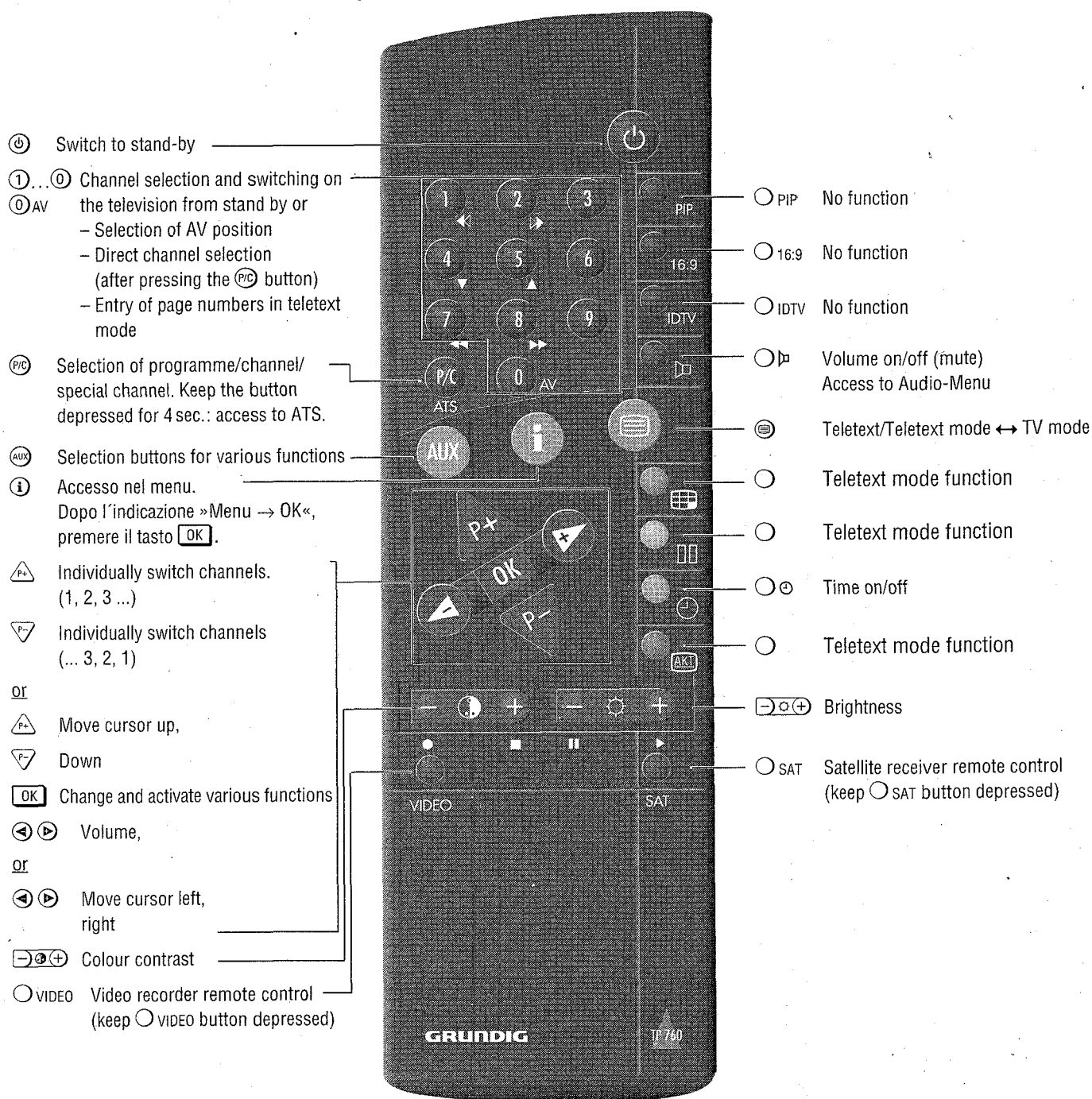
When the battery is dead, "BATTERY TELEPILOT" appears on the screen.

Replace weak batteries promptly. We cannot assume liability for damages which may result from damaged batteries.

The remote control is supplied with stickers on which you can note down the assignment of the channel positions.

At the back of the remote control there is a recess for attaching a sticker.

The Remote Control Buttons



Assigning Channel Positions

Assigning channel positions for television channels

Different television stations broadcast programmes on different channels. For example, the television station Dillberg (in the Nürnberg area) broadcasts the first programme (ARD) on channel 6.

These channels must be assigned to channel ("programme") positions in the television.

It is only necessary to make these settings once when you set up your television for the first time or if reception conditions change (for example, if you move to another location or if you are connected to a cable TV system at a later date).

In addition to the 49 channel positions, the programme positions AV1, AV2 and AV3 are available.

Your television can receive channels from television stations (as well as from satellites, cable television networks, and video recorders) which broadcast in the colour norm PAL/SECAM-BG.

Television channels can be assigned channel positions with the automatic channel search function (ATS euro plus = Auto Tuning System).

A special feature of this new system is the **automatic station programming** function.

This so-called station memory system scans the entire reception range, stores the channels found, and enters them into a table with their respective station identification abbreviations.

The channels found are then evaluated according to the quality of reception. This means that those channels with poor reception quality are entered at the end of the table.

In this way, only channels with good picture quality are assigned to the beginning of the table.

The search procedure is accompanied by helpful information in the form of a channel number.

During the search procedure, the channels, which can be called up later, are sorted according to language and country and read into the TV station table.

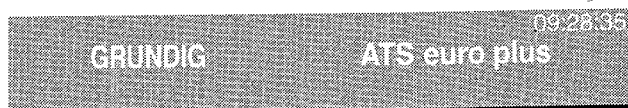
In this table, you can arrange the automatically assigned channels (without their station identification) according to your specific needs and give them a name of your choice or their respective station identification abbreviation.

Switching on

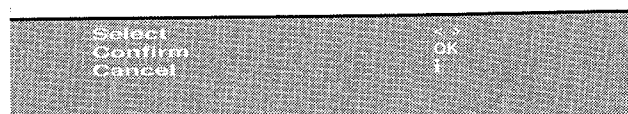
Switch the television on with the mains switch ①.

The start menu "ATS euro plus" will be displayed.

If this menu does not appear, you can call it up by pressing the  button (for approx. 4 seconds).



Language



At the bottom of the displayed menu, as with all other displays, there is a dialogue line consisting of words and symbols. These symbols correspond to the symbols on the buttons of the remote control handset.

The symbols ∇ , $\wedge$, $<$, $>$ designate the following buttons:

∇ , $\wedge$ = programme select buttons  and .

$<$, $>$ = volume  and .

Only the symbols (buttons) actually shown on the screen can be used to call up functions. This system is called on-screen user guide and is referred to in the following sections when required.

Selecting a language and location (country)

For the dialogue with your television, you can select between several languages. After having made a choice, all displays will be in this language.

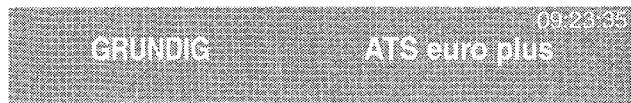
German is preset at the factory.

If you wish to select a different language, press the  or  button.

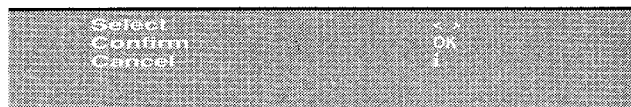
Press the  button to confirm the selected language.

Assigning Channel Positions

The next page for selecting the location of installation (country) will be displayed.



Country



Germany is preset at the factory.

The buttons and allow you to select a different country.

Starting the ATS euro plus station search

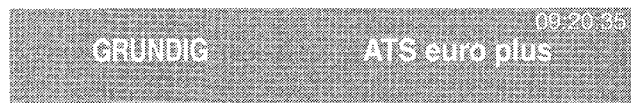
Press the button to start the ATS euro plus automatic station search. This search function automatically sorts the available channels.

When the search function is completed, the TV station table is displayed on the screen.

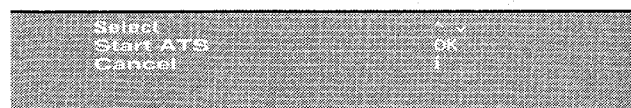
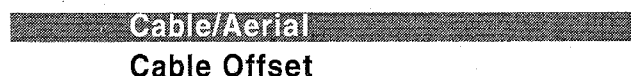
If the following note does not apply in your case, continue assigning channel positions with the chapter "Changing the sequence of the automatically sorted channel positions".

Note for users in Switzerland, the Netherlands, Belgium and others:

After having selected the country code CH, NL, B or others and confirmed this choice with the button, the following page will be displayed.



Reception VIA



If you use a common cable or aerial system, select (highlight by blue background) the menu line "Cable/Aerial" with the or button.

Start the ATS search function with the button. When the search function is completed, the TV station table will immediately be displayed.

If your TV set is connected to a cable system which does not transmit the channels with the common channel offset, you must select the menu item "Cable Offset".

In case of doubt, consult your dealer.

Press the or button.

Press the button. ATS starts and stops at each channel on which a programme with sufficient signal strength is received.



C 06 182.25 MHz

STORE --> OK

SEARCH -->

F-TUNE -->

If necessary, you can adjust the picture quality to suit your preferences with the or button.

Press the button. The channel is added to the TV stations table and the ATS channel search is started again.

If you do not want to add the channel to the TV station table, press the button to restart the ATS channel search.

When the search function is completed, the TV station table is displayed in sorted order.

Changing the sequence of the automatically sorted channel positions

Prog	Chan.	Station
1	C 06	ARD
2	C 34	ZDF
3	C 47	BR 3
4	C 40	SAT 1
5	C 36	RTL+
6	C 21	PRO 7
7	C 53	DSF
8	C 59	BR 3
9	C 06	----
10	C 32	----

Select programme		
Select station name		
Check picture		
Move		
Delete		
Terminate		

Press the or button to select the channel position that you wish to displace.

Press the button.

Press the or button to move the channel position data to the desired channel position.

Confirm the new position by the button.

Assigning Channel Positions

Entering station names

Use button  or  to select the channel position on which you want to enter or change a station name.

Press the  button.

A list of station names (or their abbreviations) is displayed on the screen.

GRUNDIG			ATS euro plus	
TV-Station table			09.28.15	
Prog	Chan.	Station	ARD	
1	C 06	ARD	BRT 1	
2	C 34	ZDF	BRT 2	
3	C 47	BR 3	CAN +	
4	C 40	SAT 1	CNN	
5	C 36	RTL+	FILM	
6	C 21	PRO 7	F2	
7	C 53	DSF	F3	
8	C 59	BR 3	INFO	
9	C 06	----	ITB	
10	C 32	----	LIFE	✓

Select station name	←
Input channel number	←
Select position	←
Stop input	OK
Check picture	■

Repeatedly press the  or  button until the desired name (abbreviation) is selected.

Press the  button. The selected name is entered.

If there is no name of your choice in the list, proceed as follows.

Press the  button once to select the first position of the station name.

Press the  or  button until the desired letter (character) appears.

Press the  button to select the next position of the station name. Repeat these steps until the complete name (abbreviation) is entered.

Conclude (confirm) the entry with the  button.

Terminating the ATS search function

Press the  button.

Press the  button. Channel assignment is stored in memory.

The menu is displayed on the screen.

If you do not wish to store the assigned channels, press the  button.

The TV station table disappears from the screen.

The Menu

Using the menu, it is possible to carry out different functions and settings with the help of dialogue lines.

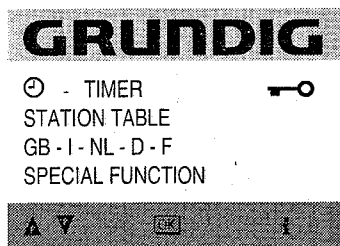
All parts of the menu will be described on the following pages. If you have already carried out one or more of the following settings, it is not necessary to repeat these steps.

Calling up the menu

Press the **1** button. The message "MENU → OK" is displayed.

Press the **OK** button.

The menu appears on the screen.



Follow the on-screen user guide!

The timer functions

By programming the timer, it is possible to automatically switch the TV set to standby within a delay of 01 to 99 minutes.

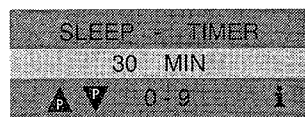
Calling up the TIMER submenu

Call up the main menu.

Press the **OK** button **1** - TIMER and **OK** change to red.

Press the **OK** button again.

The **SLEEP-TIMER** submenu is displayed on the screen.



Enter the desired time delay with the numeric buttons **1...0** or the **▽** or **△** button (15-minutes steps).

Press the **1** button.

The main menu is displayed.

When the entered time period has elapsed, the TV set is automatically switched to standby.

If you enter "00 MIN.", the function will be aborted without switching the TV set to standby.

Programme lock (security system)

The programme lock allows you to protect your TV against unauthorized use.

How to proceed

Call up the main menu.

Press the **OK** button.

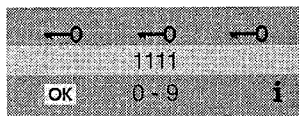
Use the **▶** button to select the **—○** symbol.

The symbol is highlighted in red.

Press the **OK** button.

The **—○ —○ —○** menu will be displayed.

Enter a **four-place** code number with the buttons **1...0** (e.g., 1111).



Press the **OK** button.

Your personal code number is stored in memory and the main menu appears on the screen.

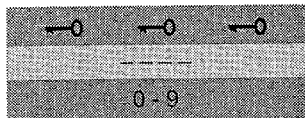
Memorize your personal identification code!

If you should forget your personal identification code, refer to the **HELP** key on the last page (cover).

The Menu

Clearing the programme lock, unlocking the unit

Each time the locked TV set is switched on, the following display appears on the screen:



This invites you to enter your personal identification code.

Enter your personal code with the numeric buttons ①...⑩ (hidden entry x x x x).

The TV set is automatically switched to TV mode.

Clearing your personal code number

Call up the main menu.

Press the ① and the **OK** button.

Press the **OK** button (⊖ – TIMER changes to red).

Press the ► button. ◀ changes to red.

Press the **OK** button.

The ◀ ◀ ◀ menu appears on the screen.

Enter your **four-digit** identification code with the buttons ①...⑩ (e.g., 1111).

Your personal identification code is cleared.

The TV station table

ATS euro plus registers all programmes which can be received. If other channels are added to the frequency range at a later time, they can easily be assigned to the TV station table. You can check their assignment at any time by calling up the TV station table.

Adding new TV channels

Calling up the main menu:

Press the ① button. The message "MENU → OK" appears.

Press the **OK** button.

The main menu is displayed.

With the ▽ button, highlight the line STATION TABLE in blue.

Press the **OK** button.

The "TV-Station table" appears.

Prog	Chan.	Station
1	C 06	ARD
2	C 34	ZDF
3	C 47	BR 3
4	C 40	SAT 1
5	C 36	RTL+
6	C 21	PRO 7
7	C 53	DSF
8	C 59	BR 3
9	C 06	----
10	C 32	----

Select programme
Select station name
Check picture
Move
Delete
Terminate

With the ▽ or ▲ button, select the channel (programme) position where you wish to store another channel.

Press the **OK** button.

Press the ◀ button.

If you wish to receive programmes which are transmitted via cable on special channels, press the ▽ or ▲ button. (S = special channel, C = channel).

Press the ► button.

With the numeric buttons ①...⑩, enter the channel number as two digits.

To enter the station name, refer to the on-screen user guide or to the chapter "Assigning Channel Positions".

Press the **OK** button to conclude entry.

You can assign up to 49 programme (channel) positions.

Pressing the ① button removes the TV station table from the screen and calls up the main menu.

The Menu

Fine tuning

The television automatically adjusts the best possible picture. However, in difficult reception conditions, it may be necessary to adjust the picture with the fine tuning facility as follows:

How to proceed:

Call up the TV station table.

Select the programme position where fine tuning is to be adjusted.

Press the  (blue) button.

Press the  or  button.

Adjust the picture to suit your personal preferences.

Press the  button.

The TV station table appears.

Follow the on-screen user guide!

Language selection

The whole text is available in several languages.

D (German) is factory-preset.

Special functions

The submenu "Special Functions" is divided into 3 items. With these, you can carry out different basic settings.

Call up the main menu.

Press the  button. **MENU** → **OK** is displayed.

Press the  button.

The main menu is displayed.

Repeatedly press the  or  button until the menu line SPECIAL FUNCTION is highlighted in blue.

Press the  button.

The submenu SPECIAL FUNCTION appears.

SPECIAL FUNCTION		
PROG.	1-9	1-49
OSD	ON	OFF
PROG.	▲	HP
▲ ▼		

PROG. 1-9 1-49

Restricting programme selection.

Press the  button.

Press the  or  button; 1-9 changes to red.

This restricts programme selection to **one-digit** programme position numbers (programme positions 1 to 9).

Pressing the  or  button once again switches back to selection of the programme positions 1 to 49 (e.g., P 10).

Press the  button.

The setting is stored in memory.

This setting has no effect when the programme positions are selected with the  or  button.

OSD ON OFF

Switching on/off the on-screen bar displays.

In the menu line "OSD ON OFF", you can choose between

OSD ON: The bar displays for volume, black/white contrast, colour contrast, brightness, and the station identification are displayed when changing the settings.

OSD OFF: The bar displays for volume, black/white contrast, colour contrast, brightness, and the station identification are not displayed.

How to proceed:

Use the  or  button to select the menu line "OSD ON OFF".

Press the  button.

Press the  or  button.

This switches to OSD OFF.

Press the  or  button again to switch back to OSD ON.

Press the  button.

The setting is stored in memory.

The Menu

PROG.

Changing the volume on a channel position

If you receive a programme whose volume differs from other channels (too loud or too soft), this volume can be adjusted as follows.

How to proceed:

If you do not use this function at the moment, you must first call up the submenu SPECIAL FUNCTION.

With the  or  button, select the third menu line (highlight it in blue).

Press the  button twice.

The  VOLUME bar graph display appears.

Adjust the volume with the  or  button.

Only the volume level of the currently selected programme position is changed!

The set volume level is stored in memory and will be recovered when selecting the same programme position again.

PROG. HP

The "HP" function is used for automatic programming of the TV set. This programming can only be carried out by your dealer which is in the possession of an **IR DATA PROGRAMMER**.

Entering Channels Directly

It is also possible to assign channels this way if you already know the channel numbers.

If you have already assigned the channels using "ATS euro plus", it is not necessary to assign them again.

Example:

The second channel (ZDF) is broadcast on channel 34 and you want to re-assign it to channel position 2.

Selecting the channel position

Press the numeric button  (or use the  or  button for step-by-step selection) to select the desired programme position 2.

Selecting the channel function

Press the  button.

C (stands for channel) and a number between 00 and 99 appear for approx. 3 seconds.

If you wish to receive programmes which are broadcast via cable on special channels, press the  button once again.

S (= special channel) is displayed for approx. 3 seconds.

Entering the channel number

Press the numeric button  then .

The channel number 34 is entered.

Storing the channel number

Press the  button.

"TUNE" is displayed on the picture screen.

Press the  button to store the channel number in memory.

For further settings, refer to the on-screen user guide.

Picture and Sound Adjustments

Switching off the TV sound

You can switch off the sound of your TV set by pressing the  button.

When the sound is switched off, the  symbol and AUDIO → OK are displayed on the screen.

Pressing the  button switches the TV sound on again.

It is also possible to switch the TV sound on again by pressing the  - button, or by selecting a different programme position.

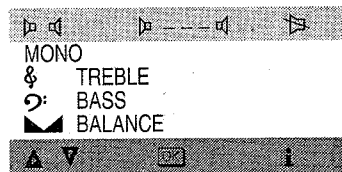
The audio menu

Calling up the audio menu:

Press the  button.

AUDIO → OK is displayed on the screen.

Press the  button.



Menu item 1

Base width

This function enlarges the sound base in the case of stereo broadcasts and improves the sound pattern of mono broadcasts.

Adjust with the  button.

Menu item 2

General

With menu item 2, there are different displays possible. These displays are function of the sound signals broadcast by the stations, e.g., MONO, STEREO, etc.

Stereo or two-channel sound transmissions

If your TV set receives a two-channel sound transmission, e.g., a film with the original sound track on channel B and the synchronised version on channel A, you can select the desired channel

with the  or  button (highlight in blue).

To switch from A to B, press the  button.

If you use headphones, you must additionally press the  button.

If the TV set receives stereo broadcasts, it switches automatically to stereo sound.

STEREO is displayed on the picture screen.

If the stereo sound is poor, you can improve the sound impression by switching to mono with the  button.

If you wish permanently mono sound on a programme position, enter "Mono" as station name (see chapter "Entering station identifications").

Menu items 3, 4, 5

Treble, bass, and balance

The sound settings can be adjusted to suit your personal preferences.

Select with the  or  button.

Press the  button.

The respective bar graph will be displayed.

Adjust with the  or  button.

Press the  button to return to the main menu. After a short time, the main menu is automatically displayed.

Adjusting the Picture Values

If you want to adjust the picture values, press the - or + side of the rocker switch for

colour contrast 

brightness 

For the black/white contrast:

First press the  button, then the rocker button .

The changed values are indicated by bar graphs on the screen, provided the OSD ON function has been selected.

The last set value is retained.

To check the reliability of the components, the TV set has been tested with maximum contrast. However, we recommend to slightly reduce the contrast setting according to the room illumination (ambient light) to obtain the best picture impression

Teletext mode

①...⑩ Select pages 100-899

Display dialogue line with **AUX** button

Display:

⏏ ↑ ⏏ X /00 ⏏ ? STOP

Enlarge character size

Bypass waiting time (current mode)

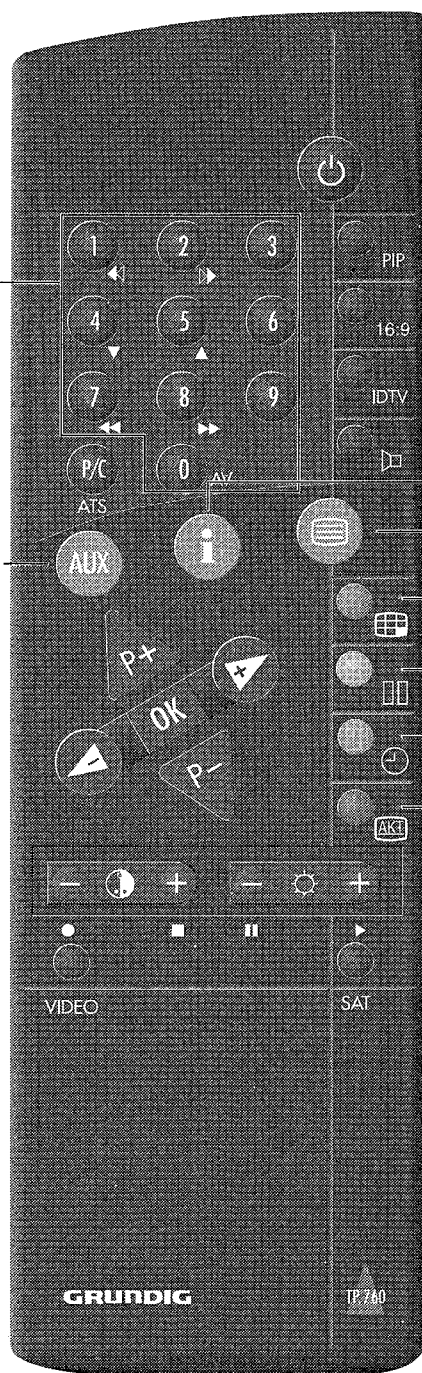
Directly call up sub-page

Reveal answer

Page STOP

Select functions with the ◀ or ▶ button.

Call up with the **OK** button.



Call up contents page.

Teletext mode ↔ TV mode

○ (blue) Go to next block

○ (yellow) Go to next group with overrun to next block.

○ (green) Go to next page with overrun to next group.

○ (red) Scroll backward

Floftext

The coloured buttons guide you to the topics shown in the dialogue line.

Teletext Mode

General

Additional information that is broadcast at the same time as a TV programme from a TV station is called teletext.

You can make this information visible on your screen with the teletext decoder that is built into your television.

Teletext is transmitted in the form of texts and graphic representations, or sub-titles for a TV programme.

Subtitles aid persons with hearing disabilities.

With the help of information pages and dialogue lines, your TV set makes teletext easy to use. The indications given in the dialogue lines denote the different functions and the buttons provided for them.

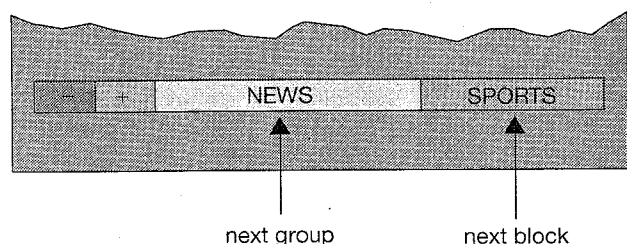
TOP-FLOF teletext

TOP and FLOF are two new innovations that allow quick and easy selection of teletext pages.

TOP and FLOF make it possible to select teletext pages without knowing their page numbers. All teletext pages are broadcast arranged by topics - also called blocks - similar to a filing cabinet.

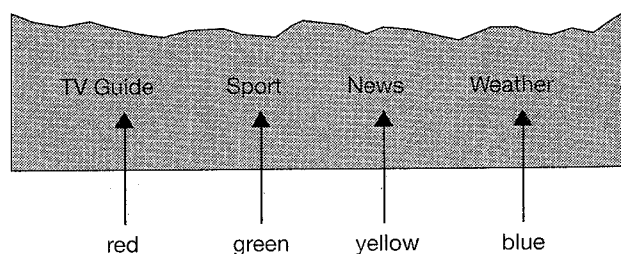
For example, all news items are listed under "Current Topics". Other topics include the blocks "Sports", "TV Programmes" and "Services". These blocks are then normally divided further, for example, "Current Topics" is divided into politics, economics and culture. The normal pages are located within these groups.

The on-screen user guide makes using TOP and FLOF easy. A comment line in different colours is shown at the bottom of the screen. These colours are the same as the ones on the remote control. During TOP mode, the yellow field indicates the next group in the current block. The blue field indicates the next block.



To switch from block to block, use the blue button, from group to group, the yellow button, and to scroll forward, use the green button. To return to the previous page of a group or block, press the red button.

In FLOF mode, the topics are displayed in colour. Use the correspondingly coloured buttons of the remote control to go to the displayed topics.



TOP and FLOF take you quickly, easily, and reliably to the teletext page you want.

If no TOP or FLOF teletext is broadcast from the TV station, a red bar will appear with a - and a green bar with a + in the dialogue line.

Note

If the aerial signal is not perfect, for example, if it fades away, teletext pages may also display disturbances. If you cannot improve the signal with the fine-tuning function of the TV set, have your aerial system checked.

Important

The TV station needs additional information for the teletext mode. This is why it is necessary to wait after switching the TV on or changing the channel until the TOP decoder has read this information in its memory and the information is available.

With the  button, you can directly return to normal TV mode.

Please observe the user guide displayed on the bottom of the picture screen.

Teletext Mode

Operation

Select the TV programme whose teletext pages you wish to call up by pressing the numeric buttons ①...⑩.

Switching teletext on/off

Press the  button on the remote control handset.

The overview page 100 or the last viewed teletext page appears on the screen.

Press the  button to switch teletext off.

TOP mode

A red, green, yellow, and blue field is shown at the bottom of the screen. Buttons of the same colour are found on the remote control.

To scroll backward, press the  (red) button.

To scroll forward to the next available page (with overrun to the next group), press the  (green) button.

To switch to the next group, press the  (yellow) button. After the last group in the selected block, you come automatically to the next block (overrun).

To switch from block to block, press the  (blue) button.

Calling up pages

- Enter the number of the desired page with the numeric buttons ①...⑩ as **three digits**.
- The page number is indicated at the bottom edge of the picture screen and the page appears after a few seconds.

Programme preview

You can switch directly to the programme preview of the station you are currently viewing.

Press the  button.

Page 100 (overview) appears.

Press the  button again.

The programme preview block appears.

Press the  button again.

Page 100 (overview) re-appears.

In FLOF mode, this function takes you to the overview page chosen by the TV station.

Multiple pages/page stop

Several subpages can be combined under a single page number. These are then automatically scrolled at an interval determined by the TV station. This is indicated by a symbol under the time, for example, 3/6 means that you are viewing page 3 of 6 subpages.

If you want to view a subpage for a longer time, press the  button.

The dialogue line is displayed.

Select the STOP symbol with the  or  button.

Press the  button.

"STOP" appears at the top of the screen. The contents of the page shown are kept on the screen and are no longer updated or switched to other subpages.

Press the  button.

The STOP function is cancelled and the current subpage appears.

Calling up a subpage directly

Press the  button (the dialogue line appears).

Select the /00 symbol with the  or  button.

Press the  button.

The selected page number, e.g., S155/---- appears in the info line.

Enter the four-place subpage number that you want to call up with the numeric buttons, for example, the second page, sequence 0002. The desired subpage is sought and displayed.

Press the  button.

The function is cancelled.

Teletext Mode

Doubling character size

Press the **AUX** button (dialogue line is displayed).

With the **◀** or **▶** button, select the **≡↑** symbol.

Repeatedly pressing the **OK** button doubles the character size in the following order:

Upper half of the picture,
lower half of the picture,
return to normal picture.

Reveal

This function can be used on certain teletext pages to reveal the solution of riddles, or for programming a video recorder via VPS times.

Press the **AUX** button (dialogue line appears).

With the **◀** or **▶** button, select the **≡?** symbol.

Press the **OK** button.

The hidden information is revealed.

Press the **OK** button.

The reveal function is cancelled.

Watching television during teletext mode

Updating a page – Bypassing waiting times

Certain teletext pages are continually updated, for example, stock market reports, sports announcements, and the latest news.

If you want to watch television and stay informed at the same time, first select a page of your choice, then

press the **AUX** button (dialogue line is displayed).

With the **◀** or **▶** button, select the **≡X** symbol.

Press the **OK** button.

The regular programme is still visible and the teletext symbol appears at the top of the screen.

If, for example, P143 appears in the info line, then

press the **OK** button.

The teletext page appears with the updated information.

This function can also be used to bypass waiting times while the teletext decoder searches for a page. When the page has been found, the indication P143, for example, appears in the info line.

Connection Capabilities and Operation

... of stereo headphones

Connection:

Insert the headphone jack (3.5 mm Ø) into the socket ⑦

Operation:

Press the **AUX** button, then adjust the volume with the **◀** or **▶** button.

The adjusted value is displayed on a scale (OSD).

For individually selecting a sound channel on headphone operation, refer to the audio menu.

... of a satellite receiver

Connection:

Connect your satellite receiver with an appropriate cable to the EURO-AV socket ⑨.

Operation:

Repeatedly press the **ⓐ** button until AV 1 is displayed.

Press and hold the **○** button and enter the desired programme position of the satellite receiver with the numeric buttons ①...⑦.

... of a decoder (descrambler)

Certain television stations that broadcast via cable scramble their programmes, i.e. the sound and picture signals are purposefully distorted. You can unscramble these kinds of transmissions with a decoder ("descrambler").

Connect your descrambler to the EURO-AV socket ⑨ and switch it on.

On the TV set, select the programme position on which the scrambled programme is received. Press the buttons **AUX** and **ⓐ**.

"DESCRAMBLER OFF" is displayed.

By repeatedly pressing the **ⓐ** button, the following functions can be selected:

"DESCRAMBLER ON AUTOMATIC"

Switches automatically to mono, stereo, or two-channel sound broadcasts. Switching depends on the kind of broadcast received via the aerial.

"DESCRAMBLER ON STEREO"

The left and right sound channels of additional units attached to the EURO AV socket are switched through to the speakers.

"DESCRAMBLER ON MONO L"

For "Mono L", the left sound channel is switched to both speakers.

"DESCRAMBLER ON MONO R"

For "Mono R", the right sound channel is switched to the speakers.

The scrambled programmes are passed from the television to the decoder, are descrambled, and are then passed back to the television where the unscrambled signals can be viewed as a normal television programme.

When additional units are connected...

Every channel position can be used for playback from other connected units, such as a video recorder with the switching voltage to PIN 8 of the Euro AV socket, that is connected to the EURO AV socket.

Example

If you receive several television channels and would like to assign the video recorder to channel position 16, select channel position 16 with the numeric buttons. Set as described in "... of a decoder".

Connection Capabilities and Operation

... of a video recorder

Connection:

Connect the video recorder with AV cable to the black ⑨ or blue ⑧ AV socket or with an aerial cable (75 Ohm) to the aerial socket ⑩.

Operation:

Video recorder connected to the black Euro AV socket ⑧

Press the ①AV button until AV 1 appears on the screen. The picture/sound signal of the video recorder that is connected to the black AV socket can be switched to any channel position (see "Channel positions for additional units"). Start video recorder playback.

Video recorder connected to the blue Euro AV socket ⑨

Press the ①AV until AV 2 appears on the screen. Start video recorder playback.

Video recorder connected to the aerial socket ⑩

Assign the playback channel specified by your video recorder (between 30 and 40) to any channel position (for example, P16) (see "Assigning channel positions manually"). If you enter the symbol **AV** on this channel position as the station identification, possible deviations from the playback channel of the recorder via the television can be compensated for.

If you do not know the playback channel of your video recorder, start the video recorder playback and search for the channel using the channel search of your television (see chapter "Assigning channel positions").

Note the channel position for subsequent video playback.

You can adjust the sharpness of the video picture, if desired (see chapter "Fine-tuning").

... of a camcorder

Connection:

Connect the camcorder with a suitable cable to the FBAS socket ⑤. The sound must be separately passed via the two phono sockets ⑥. If mono units are used, connect the audio cable to the socket L ⑥.

Operation:

Repeatedly press the ①AV button until AV 3 is displayed on the picture screen.

Start playback of the camcorder.

Playback from the camcorder is visible on the picture screen.

... of S-VHS video recorders, S-VHS cameras or Hi 8 camcorders

The picture quality for an S-VHS video recorder, an S-VHS camcorder or a Hi 8 camcorder is even better when connected to the S-Video socket ⑪. This is because the colour and brightness signals can be processed separately from each other. This ensures that they cannot influence each other; cross-colour luminance, for example, is eliminated. However, the sound must separately be passed via the two phono sockets ⑫. If mono units are used, connect the audio cable to the socket L ⑫.

Operation:

Repeatedly press the ①AV button until AV 3 is displayed on the picture screen.

Start playback on the camcorder, camera or video recorder.

Video playback is visible on the picture screen.

Connection Capabilities and Operation

Copying recordings via the television (Transfer mode)

You can record from one video to another, or from a camcorder to a video recorder, or from a S-VHS video recorder to another video recorder.

Proceed as follows:

Connection:

Connect the playback recorder or camcorder to the black EURO AV socket ⑨.

Connect the camcorder to the cinch sockets ⑤ and ⑥. (⑤ = picture input (Video), ⑥ = sound input (Audio), left and right channel).

Connect the S-VHS camera or Hi 8 camcorder to the S-VIDEO socket ⑪ and the phono sockets ⑫.

Connect the recording recorder to the blue EURO AV socket ⑧.

Operation:

Select the input socket with the ①AV button.

AV 1 = lower Euro AV socket (black) ⑨

AV 3 = FBAS socket ⑤

AV 3 = S-VIDEO socket ⑪

For AV 3, the sound must be separately connected via the two cinch sockets ⑥ or ⑫.

Press the  and then press the ①AV button.

Displayed on the screen is:

... if channel position AV 1 is selected:

COPY AV 1 ➤ AV 2

... if channel position AV 3 is selected:

COPY AV 3 ➤ AV 2

You can now watch any channel without disturbing the recording.

To cancel the COPY function, press the ①AV and the  button and then the ①AV button.

Video recorder remote control

This television's remote control can also be used to operate a **video recorder**. Ask your dealer which models are appropriate for this.

How to proceed:

Press and hold the  VIDEO button.

Then press the button for the desired function.

The following list shows the buttons used for video recorder functions.

- ◀ (Numeric button ①) = picture search, reverse
- ▶ (Numeric button ②) = picture search, forward
- (Button ) = recording start
- (Button ) = stop
- ◀◀ (Numeric button ⑦) = fast rewind
- ▶▶ (Numeric button ⑧) = fast forward wind
- ⏸ (Button ) = pause
- ▶ (Button ) = play start
- ▼ (Numeric button ④) = programme position -
- ▲ (Numeric button ⑤) = programme position +

Adjusting the picture and sound during video playback

If there are deviations in the picture and sound during video playback in comparison to the picture and sound you are normally accustomed to (for example, the sound is too loud or the colours are too bright), you can change these settings and store them with the remote control (this does not change the basic setting of the television picture).

Technical Data

Mains Voltage:

220-240 V, 50/60 Hz
(Power supply control range 190 ... 264 V)

Power consumption:

approx. 110 W
In standby approx. 5 W

Channel coverage:

Channels 01 ... 99
Special channels S 01 ... S 99

Sound output:

2 x 25 W music power (2 x 12,5 W sine power)

Service note for the dealer:

This unit is provided with a pluggable power supply cable. For replacements, contact the nearest customer service centre and always indicate the following order number: 8290-991-307.

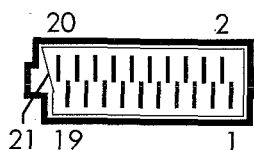
This unit conforms to VDE safety regulations and the directives of the Deutsche Bundespost (German Federal Post Office; see the certification mark on the type sticker on the rear of the unit), and also all relevant regulations concerning X-ray emission. The picture tube, which emits X-rays, is sufficiently shielded, and therefore represents no danger. Accelerating voltage is a max. 34 kV, with a mean beam current of 1.6 mA.

Unauthorized tampering with the unit, especially adjustments to the high voltage system or the installation of a different type of picture tube, can considerably increase X-ray emission. Units altered in this way no longer conform to the operating permission conditions and may not be operated.

Pin assignment of EURO-AV socket ⑨

If you want to connect other units to your television (for example, a computer or amplifier), your dealer can provide you with a standard connection by means of the following table:

Pin	Signal
1	= Audio output, right
2	= Audio input, right
3	= Audio output, left
4	= Audio earth
5	= Blue earth
6	= Audio input left
7	= RGB blue input
8	= Switching voltage
9	= Green earth
10	= -
11	= RGB green input
12	= -
13	= Red earth
14	= Earth
15	= RGB red input
16	= RGB switching voltage
17	= Video earth
18	= RGB switching voltage, earth
19	= Video output
20	= Video input
21	= Shielding/Earth



Alterations reserved!